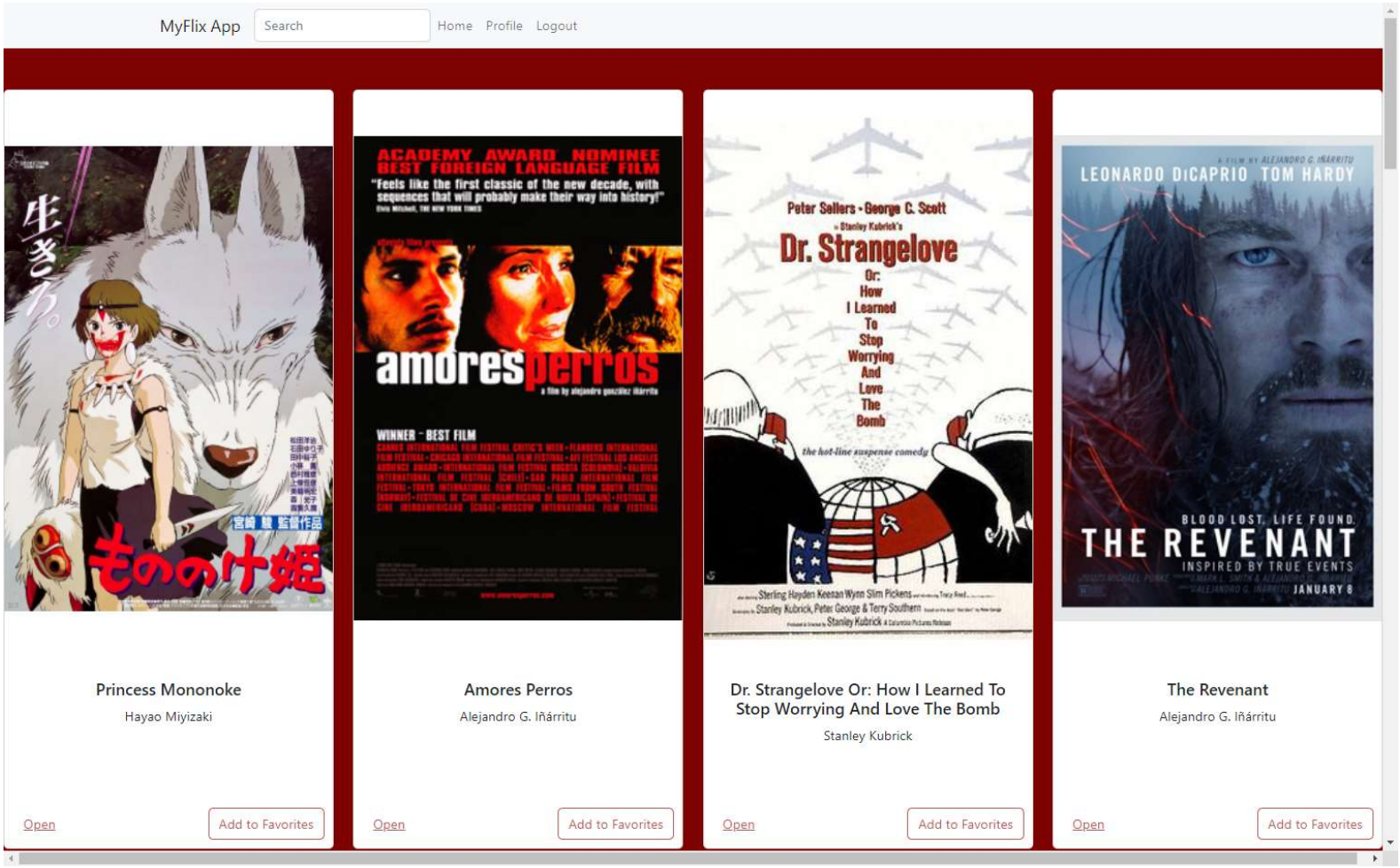
Case Study for MyFlix:
Full-stack MERN project

Overview

This Full-stack project is called the ‘MyFlix App’. It is made in the spirit of movie database websites such as IMDb.com. Akin to IMDb, my app gives a miniature version of that experience by providing users with a small database of movies to search and explore, a bit of information about each movie, and the ability to create a personal list of favorite movies.

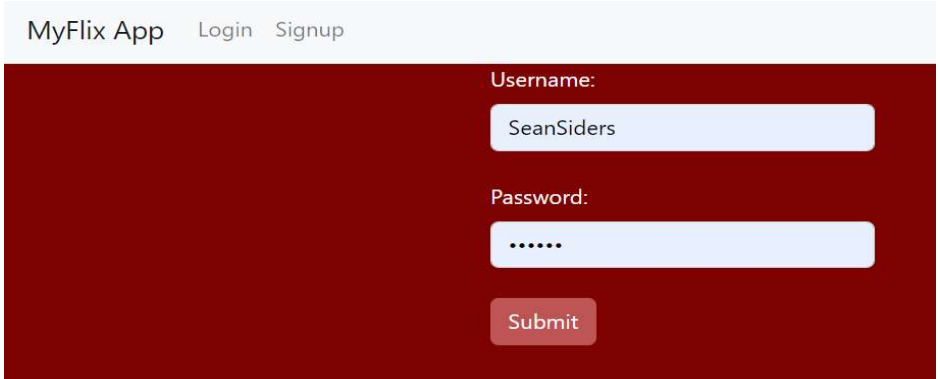


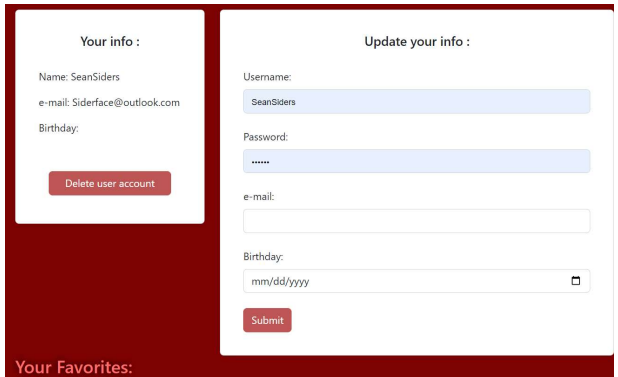
Purpose & Context

The project is part of my journey in my skills' development. I intend to use it as an example of my ability to use the MERN stack, as part of my hands-on learning experience with my mentors at CareerFoundry. I built and designed it to be a functioning web application to showcase my full-stack JavaScript skills in every aspect of the app's development.

Objective

I set out to build this project to showcase my comprehensive understanding of the development process, from start to finish, of a React application, and demonstrate that skill set with a fully functioning web application. This included building the database, API with CRUD methodology, database security and login authentication, interface layout, design styling, and every aspect of interactive functionality throughout the entire application.

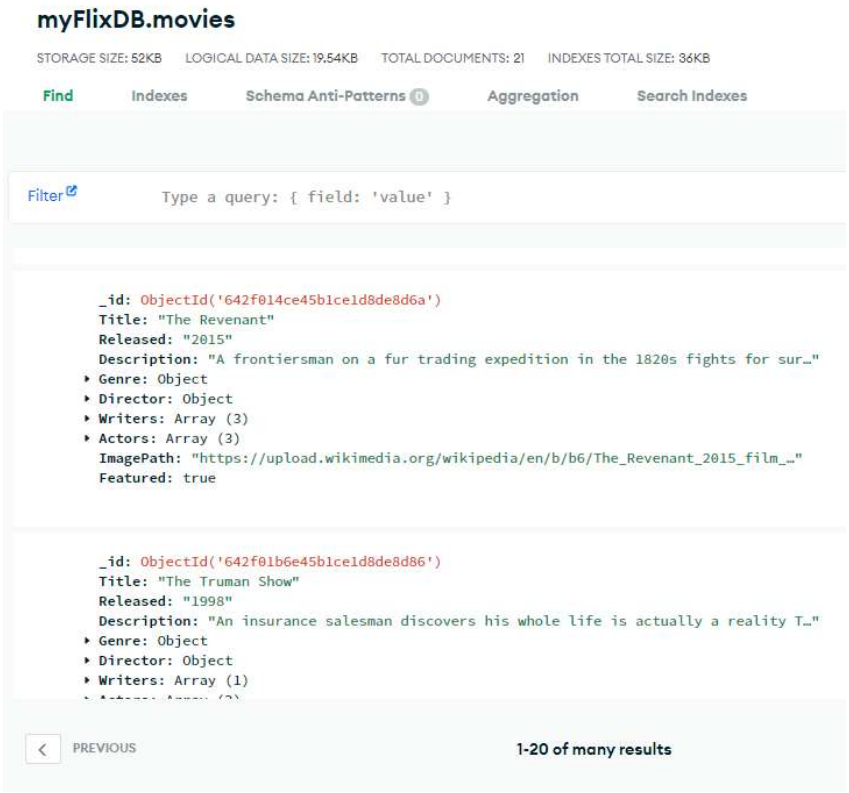




My MERN Development Journey

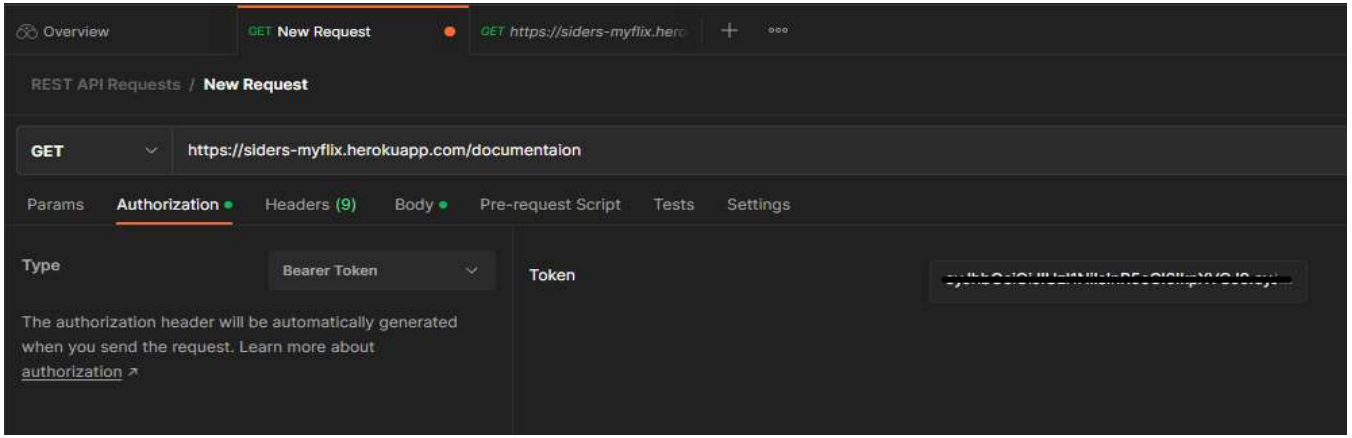
Node.js **(N)** and Express.js **(E)** – The first thing I grappled with was developing an understanding of the runtime environment that would handle all the incoming client-request from clients, interact with the database, and manage the server-side logic. For this, I learned and harnessed the power of Node.js. In conjunction with Express.js, I was able to create a RESTful API to interact with the forthcoming database to be created with MongoDB.

MongoDB **(M)** – With the runtime environment in place to handle the API, I was able to set up the database and populate it with data entries that interact appropriately with my API endpoints. Heroku was paramount in this process in hosting a deployment environment, and allows the application to grow and adapt along with me as a developer.



React **(R)** – Here, in the front-end, is where the fireworks began for me. This is where I dramatically leveled up my programmatic logic skills. I worked through countless pitfalls and victories that all contributed to my learning and mastery of this cutting-edge JavaScript library. I worked out the intricate relationships that the “views” have with one another within the single-page application to optimize functionality for the user experience. I then utilized React-bootstrap, the dynamic built-in CSS framework modified for optimal interaction with React applications.

Testing – I was able to employ the invaluable testing tool, Postman, to configure and test my API endpoints, as well as create, test, and verify user authentication and JWTs (JSON Web Tokens).



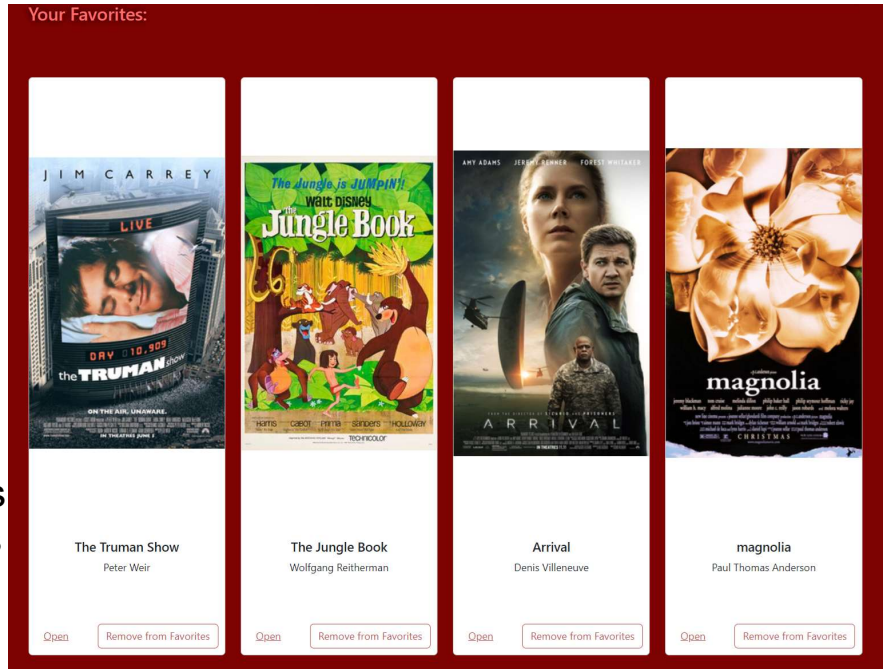
Deployment – Deployment was a breeze with everything being handled properly. I am using the web hosting service, Netlify, to provide my web-accessible location online. It created no new problems, and the MyFlix application is running and functioning.

Duration

I worked on this project for about three months. These were all new concepts for me, so I made sure to spend extra time at each step along the way to develop my skills as much as possible while being sure to meet the deadlines dictated within the CareerFoundry program.

Challenges

My most notable challenge was a minor detail that resulted in an extensive investigation into many aspects of how React-JavaScript logic works. Each user can add and remove favorites to a personal list that is housed on their account page. When the user removed a movie from their list, the resulting list didn't represent that visually. In my weeks-long struggle to solve this problem, I explored and learned countless aspects of the programmatic logic within; most notably, the methods for controlling when events happen and how they manifest their intended functionality. In collaboration with two of my seniors at CareerFoundry, as well as a personal acquaintance I have who currently works as a senior developer in the field, I was able to achieve the intended result of a responsive favorites list that reacts to the users' actions.



Conclusions

Of the many projects I have worked on since starting out in this journey as a web developer, this one was definitely the most impactful on my learning experience. It is truly a comprehensive product of full-stack knowledge and skills. From the back-end framework development and building of the database, to the dynamic front-end user experience and the design styling, every step of the way invited new challenging opportunities my learning, growth, and skills demonstrations. I was able to bring all of that together to deply this polished product that can grow and evolve with me as a developer.

Credits:

Lead Developer: Sean Siders

Mentors: Tanzim Mokammel
Alfredo Vélez

Tutor: Vivek Maskara

Additional help from:
Edward Walther,
The CareerFoundry communityand staff
Matthew Doan (personal friend and senior web developer)
Damien Nay (personal friend and senior web developer)